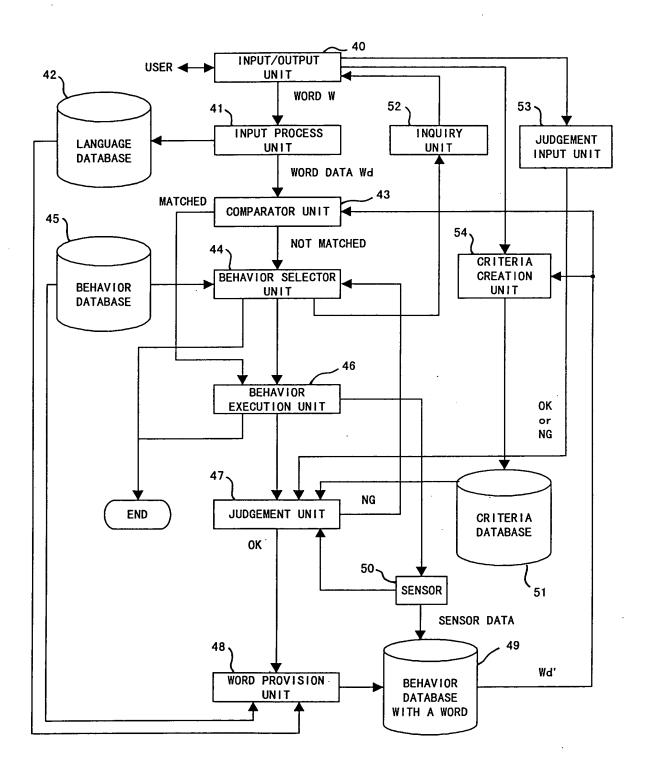
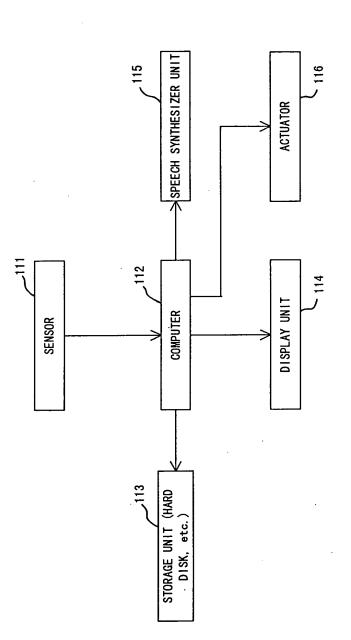


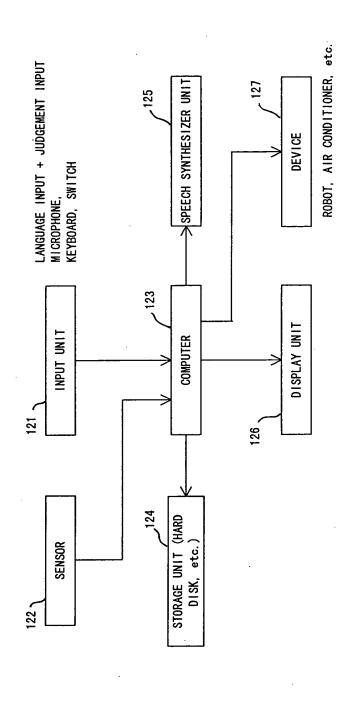
F I G. 2



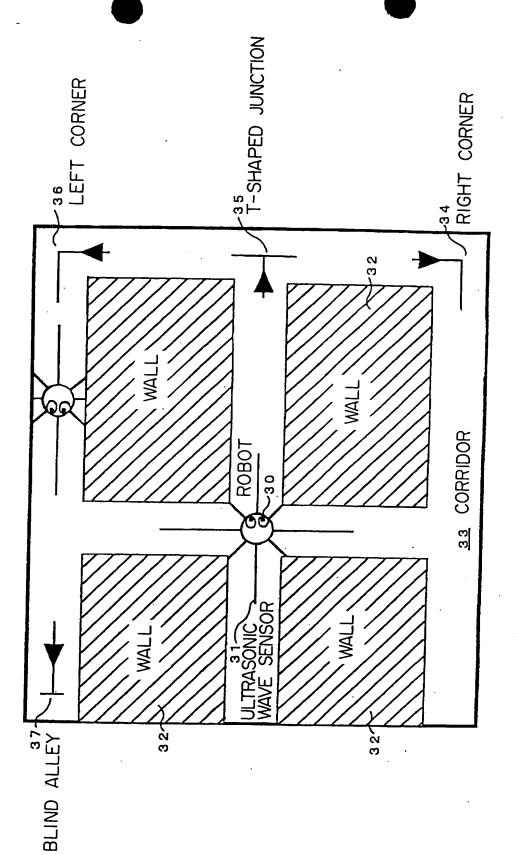
F1G. 3



F I G. 4



F G. 5



F1G. 6

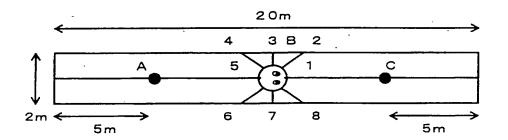


FIG. 7A

	1	2	3	4	5	6	7	8
А	10. 0	1.0	0. 6	1. 0	4. 6	1.0	0. 6	1. 0
В	9. 6	1. 0	0. 6	1.0	9. 6	1.0	0. 6	1.0
С	4. 6	1.0	0. 6	1: 0	10. 0	1.0	0.6	1.0

FIG. 7B

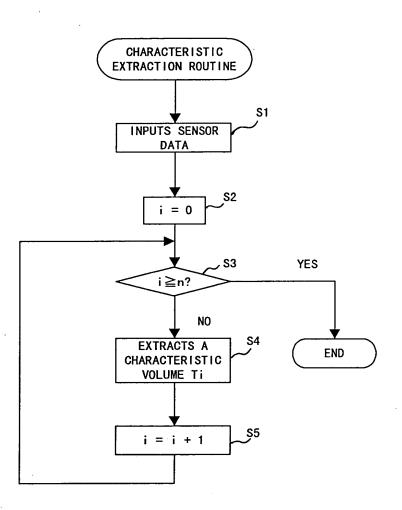


FIG. 8

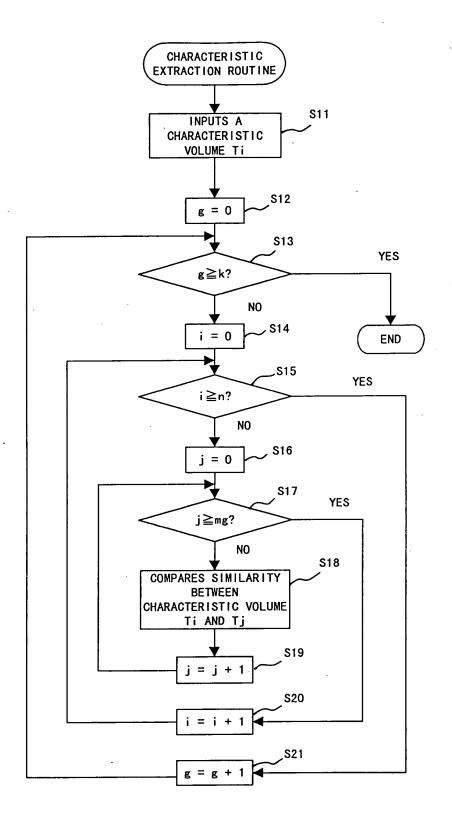


FIG. 9

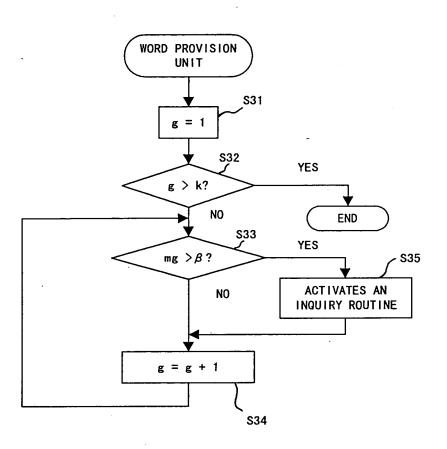


FIG. 10A

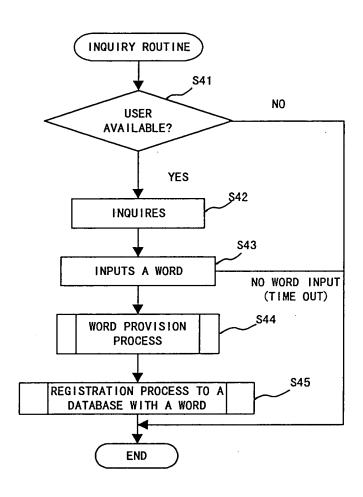


FIG. 10B

INQUIRY	DATA IN THE FOLLOWING LIST ARE OBTAINED. NAME THE DATA.	WORD INPUT : CATEGORY :
CONTENTS OF DATA	NUMBER OF DATA : 10 CONTENTS OF CHARACTERISTIC: A 0 / A t > 0 DATA LIST: Data 1 : 10.0 Data 2 : 11.0 Data 3 : 12.0	RECOMMENDED: CATEGORY: VERB WORD: TURN

FIG. 11

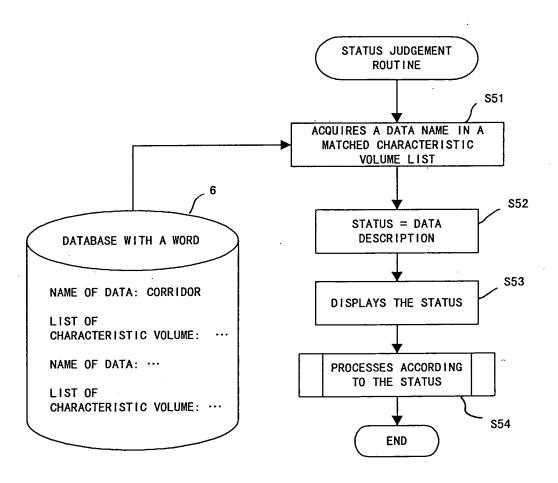


FIG. 12

AN EXAMPLE OF DATA OF A DATABASE FOR STORING RAW DATA:

ID: 0001

TIME: 1990. 11. 11 10:00:00

SENSOR ID: US

DATA: 1.0 1.0 1.0

CHARACTER: Ufr/Url

DATA: 16.0

ID: 0002

(IDENTIFICATION NUMBER OF DATA)

(ACQUIRED TIME OF DATA)

(KIND OF DATA) (CONTENTS OF DATA)

(KIND OF CHARACTERISTIC VOLUME)

(CHARACTERISTIC VOLUME)

IN THE CASE OF TIME SERIES DATA:

ID: 000100

TIME: 1990.11.11 10:00:00

SENSOR ID: Theta

DATA: 1.0.

CHARACTER: Delta-Theta/Delta-Time (CHARACTERISTIC VOLUME)

DATA: 0.3(SID: 000099)

. . . .

ID: 000101

(IDENTIFICATION NUMBER OF DATA)

(ACQUIRED TIME OF DATA)

(KIND OF DATA) (CONTENTS OF DATA)

(KIND OF CHARACTERISTIC VOLUME)

FIG. 13

DATABASE WITH NO WORD

UGID: 0001

NUMBER: 5

NAME: UNKNOWN1

CATEGORY: UNKNOWN

CHARACTER: Ufr/Url

DATA: >10.0

ID: 0001,0003,0006,.....

UGID: 0002

(IDENTIFICATION NUMBER OF GROUP)

(NUMBER OF DATA BELONGING TO A GROUP)
(PROVISIONAL WORD ATTACHED TO A GROUP)

(PROVISIONAL CATEGORY OF A WORD)

(KIND OF CHARACTERISTIC VOLUME BEING A CRITERION)

(CRITERIA)

(IDENTIFICATION NUMBER OF DATA BELONG TO A GROUP)

FIG. 14A

DATABASE WITH A WORD

.....

UGID: 0001 NAME: CORRIDOR

CATEGORY: NOUN

NUMBER: 25

CHARACTER: Ufr/Url DATA: >10.0

ID: 0001, 0003, 0006,

UGID: 0001,0003,0

(IDENTIFICATION NUMBER OF GROUP)

(WORD ATTACHED TO A GROUP)

(CATEGORY OF A WORD)

(NUMBER OF DATA BELONGING TO A GROUP)

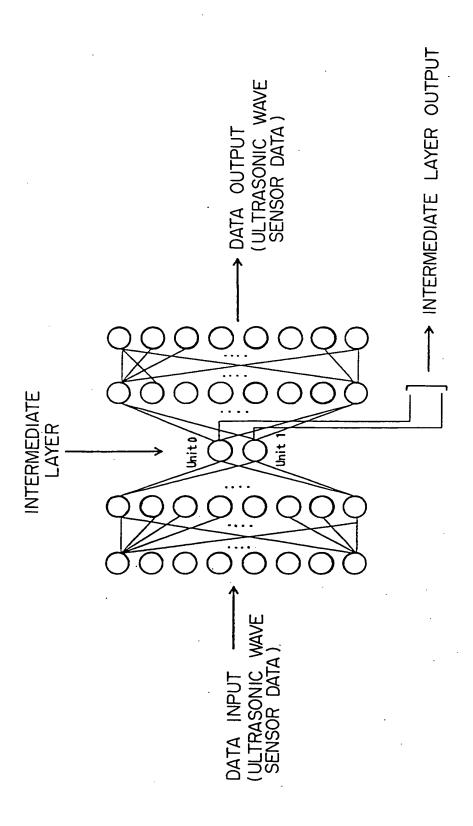
(KIND OF CHARACTERISTIC VOLUME BEING A CRITERION)

(CRITERIA)

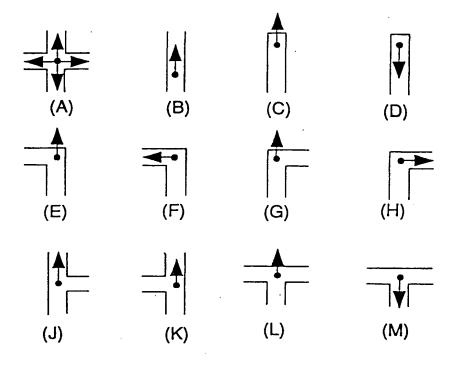
(IDENTIFICATION NUMBER OF DATA BELONG TO A GROUP)

FIG. 14B

6



F1G. 15



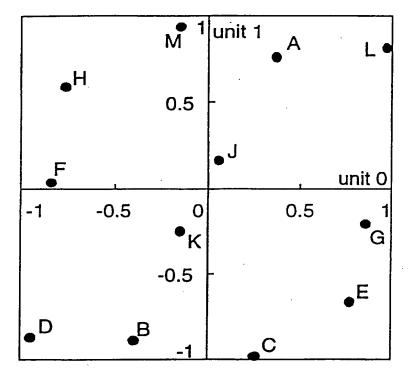
· : LOCATION OF ROBOT

DIRECTION OF ROBOT

FIG. 16

	0.1	0.1	0	5	0.1	0	0.7	0.1	6	0	0.1	0	
		-	-		-	-	-	-	-	-	-	-	
	09	6.0	6 0	0 9	6.0	0 9	6.0	6.0	6.0	6.0	6.0	6.0	
•	6	o	o	0	o	o	о О	6	6	o	6	9.	
9	0	0.1	0.1	0.1	0.1	0	0	0 1	0.1	0 1	0.1	0.1	
	-	-	<u>-</u>	-	-		-		-	-	ļ -	-	
D.	09	0 9	6.0	6.0	6.0	0 9	6.0	6.0	6.0	6.0	9	0.9	
	6	6	6	o	6	o.	6	o	6	6	<u>o</u>	o.	
4	0 1	0 1	0 1	0	0.1	0	0	0.1	0.1	0	0 1	0.1	
	-	-	-	-	-	-	-	-	-	-	-	-	
က	0 9	09	09	0 9	09	9	09	09	09	0.9	09	09	
	9.	o.	0.	o.	<u>o</u>	6	o.	0	ö	o.	<u>ი</u>	တ်	
2	0 1	0 1	0 1	0.1	0 1	0 1	0 1	0	0 1	0 1	0 1	0	
	1.	1.	1.	1.	1.	1.	٦.	1.	-		1.		
1	60	09	60	60	6 0	60	60	09	09	60	6 0	60	
	о Э	9.	o	9.	0.	9.	0.	9.	9.	9.	0.	9.	
NAME NO.	(A)	(8)	(၁)	(D)	(E)	(F)	(6)	(H)	(٦)	(K)	(L)	(M)	

FIG. 17

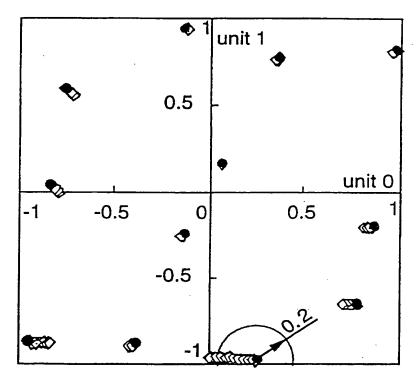


LEARNING RESULT OF CHARACTERISTIC

FIG. 18

	1	F	Т	1	1	т —	Т	Т	-		T	т-
DESCRIPTION	CROSSROADS	CORRIDOR	TO A BLIND ALLEY	FROM A BLIND ALLEY	TO A LEFT CORNER	FROM A LEFT CORNER	TO A RIGHT CORNER	FROM A RIGHT CORNER	RIGHT SPACE	LEFT SPACE	TO T-SHAPED JUNCTION	FROM T-SHAPED JUNCTION
ERROR	0. 20	0. 20	0. 20	0.20	0. 20	0.20	0.20	0.20	0. 20	0.20	0.20	0.20
Unit 1	0.77	-0.88	-0.98	-0.87	-0.65	0.04	-0.20	0.60	0.17	-0.24	0.81	0.95
Un i t o	0.36	-0, 39	0.26	-0.95	0.77	-0.83	0.86	-0.76	0.07	-0.13	0.97	-0.13
PROVISIONAL WORD	(A)	(B)	(၁)	(a)	(E)	(F)	(a)	(H)	(۲)	(K)	(T)	(M)

F1G. 19



RESULT OF CLASSIFICATION

- CHARACTERISTIC
- ♦ RESULT OF CLASSIFICATION

FIG. 20

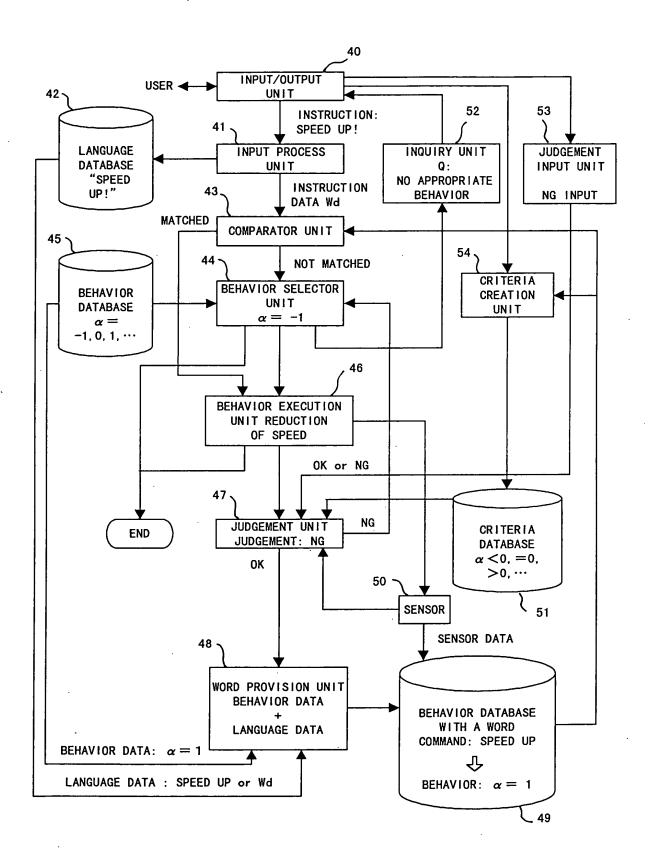
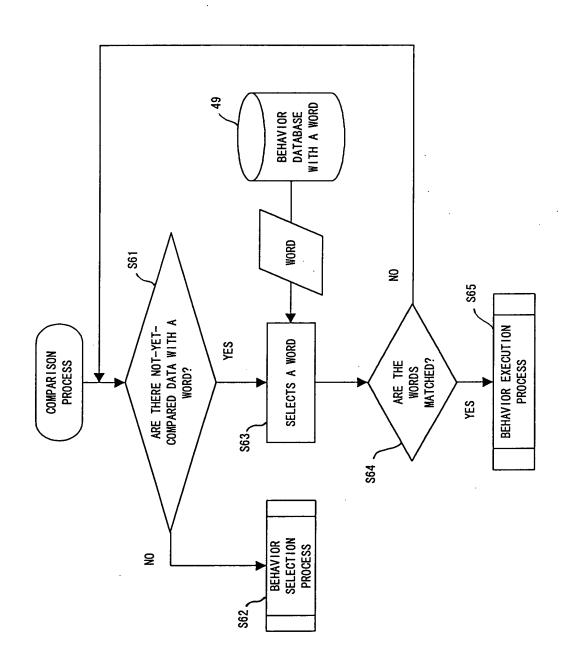


FIG. 21



F1G. 22

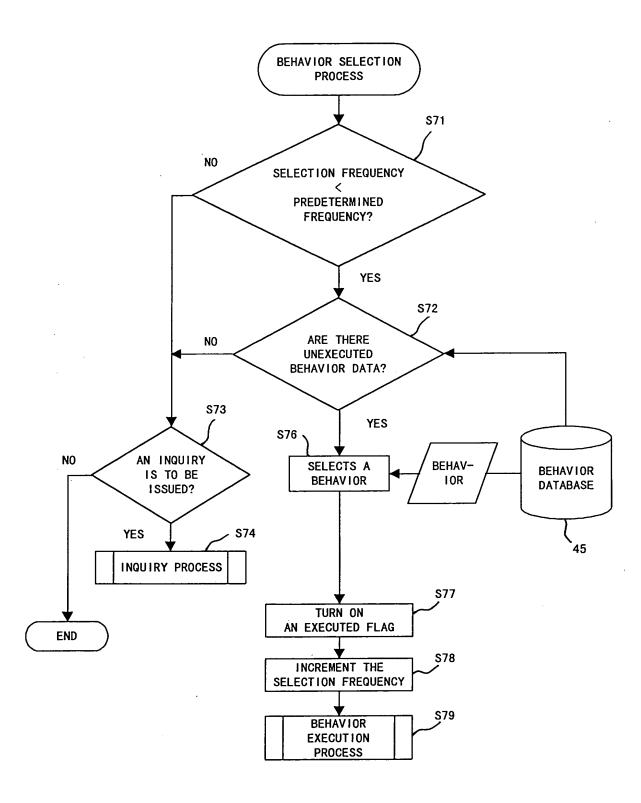


FIG. 23

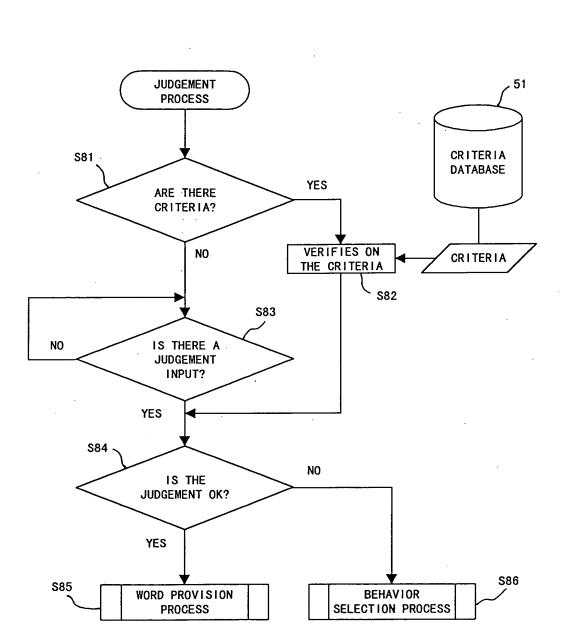


FIG. 24

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